The width of the rectangle is $x$ inches and the length is $(3x + 2)$ inches.

1. Brit represented the perimeter of the rectangle using the expression:

$$x + (3x + 2) + x + (3x + 2)$$

Explain how Brit’s expression represents the perimeter of the rectangle.

This represents the perimeter of the rectangle because to find the perimeter you add up all sides, and that’s what the expression above is doing.

2. Abbey represented the perimeter of the rectangle with the expression $8x + 4$. Determine if Abbey’s expression is equivalent to Brit’s expression. Justify your reasoning.

No, Brits expression the answer would be greater than Abbeys expression.

3. Explain what the second expression, $8x + 4$, indicates about finding the perimeter of the rectangle.

$x$ is repeated 8 times